

ABSTRACT

The present invention contemplates monitoring the amplification of nucleic acid using chromophore-containing polynucleotides having at least two donor chromophores operatively linked to the polynucleotide by linker arms, such that the chromophores are positioned by linkage along the length of the polynucleotide at a donor-donor transfer distance, and at least one fluorescing acceptor chromophore operatively linked to the polynucleotide by a linker arm, such that the fluorescing acceptor chromophore is positioned by linkage at a donor-acceptor transfer distance from at least one of the donor chromophores, to form a photonic structure for collecting photonic energy and transferring the energy to an acceptor chromophore, and methods using the photonic structures.